## Kalyani Kansal

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**Education** PhD in Mathematics

2016-2023 (expected)

2007-2013

Johns Hopkins University Advisor: David Savitt

Bachelor of Medicine and Bachelor of Surgery

Government Medical College, Chandigarh, India

(Equivalent to MD degree in USA)

Past Post-doctoral fellow in Psychiatry 2013-2016

**Employment** Johns Hopkins University School of Medicine

Research Number theory, Arithmetic geometry Interests

Mathematical K. Kansal. "Codimension one intersections between components of a moduli stack of two-dimensional Galois representations", preprint.

A. Guzman, K. Kansal, I. Kountouridis, B. Savoie and X. Wang. "Smoothness of components of the Emerton-Gee stack for  $\mathrm{GL}_2$ ", preprint.

Invited Community building in Langlands Program August, 2022

Talks Bonn, Germany

Ohio State Number Theory Seminar September, 2022

Online

Rice University AGNT Seminar October, 2022

Houston, USA

Johns Hopkins Junior Number Theory Days December, 2022

Baltimore, USA (Upcoming)

Joint Mathematical Meetings January, 2023

AMS Special Session on Women in Automorphic Forms

Boston, USA (Upcoming)

Essen Number Theory Seminar January, 2023

Online (Upcoming)

Conferences Community building in Langlands Program August, 2022

Attended Bonn, Germany

Collaborative Research Workshop July, 2022

Eugene, USA

Arizona Winter School, Automorphic forms beyond  $\operatorname{GL}_n$  March, 2022 Tucson, USA

MSRI summer school, Toric Varieties August, 2019 Taipei, Taiwan

Serre conjectures and p-adic Langlands May, 2019 Padova, Italy

MSRI summer school, Derived Categories

June, 2018
Berkeley, USA

## Selected non-Math Papers

K. Kansal, Z. Yang, A. M. Fishman, H. I. Sair, S. H. Ying, B. M. Jedynak, J. L. Prince, C. U. Onyike. "Structural cerebellar correlates of cognitive and motor dysfunctions in cerebellar degeneration". Brain, 2017.

K. Kansal, M. Mareddy, K. L. Sloane, A. A. Minc, P. V. Rabins, J. B. McGready, C. U. Onyike. "Survival in frontotemporal dementia phenotypes: a meta-analysis". Dementia and geriatric cognitive disorders, 2016.

K. Kansal, D. J. Irwin. "The Use of Cerebrospinal Fluid and Neuropathologic Studies in Neuropsychiatry Practice and Research". Psychiatric Clinics, 2015.

## Teaching Experience

Instructor: Linear Algebra (Summer 2017, 2018), Intro to Calculus (Fall 2021)

TA: Calculus I, II and III, Linear Algebra, Methods of Complex Analysis, Abstract Algebra (various, 2016-2022)